INTERVIEW SUMMARY AND AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

Dkt: 1153.009US1 Serial Number: 10/010,939

Filing Date: November 7, 2001

NANOFABRICATED PHOTON TUNNELING BASED SENSOR Title:

### REMARKS

This responds to the Office Action dated March 8, 2005.

Claims 1 and 13 are amended, claims 26-34 are canceled, and no claims are added; as a result, claims 1-25 and 35-50 are now pending in this application.

Claims 1 and 13 are amended to more clearly recite the claimed subject matter. The amendments are supported by the specification and it is believed that no new matter is introduced. Applicant respectfully requests entry of the amendments.

# Affirmation of Election

Applicant hereby cancels claims 26-34 and reserves the right to present such claims in a subsequent patent application.

### Interview Summary

Applicant gratefully acknowledges the telephone discussions with Examiner Sines and Applicant's attorney David W. Black on May 3 and May 6, 2005. The scope of pending claim 1 and Lading (US 6,493,090) were discussed. Examiner Sines acknowledged that claim 1 includes allowable subject matter and suggested amending the claim to include the phrase "configured to." Applicant's attorney noted that recent case law affirms that functional language is to be given patentable weight.

#### §102 Rejection of the Claims

Claims 1-11, 13-25, 35-43 and 45-50 were rejected under 35 U.S.C. § 102(e) as being anticipation by Lading et al. (U.S. Patent No. 6,493,090 B1).

Applicant respectfully submits that *prima facie* anticipation has not been established on the basis of the cited document. In particular, Applicant is unable to find, in Lading, a teaching or disclosure of a structure configured to reflectively communicate light to an optical sensor, as recited in claim 1. In addition, Applicant is unable to find, in Lading, a teaching or disclosure of a light source configured to illuminate said first translucent plate at a predetermined angle relative to said first translucent plate, as recited in claim 13. In particular, the Office Action

INTERVIEW SUMMARY AND AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

Serial Number: 10/010,939

Dkt: 1153.009US1

Filing Date: November 7, 2001

Title: NANOFABRICATED PHOTON TUNNELING BASED SENSOR

refers to an element described in Lading as "the top of outer walls 9 or 9" as "a first translucent plate" however Applicant is unable to find that Lading recites the structure in the particular arrangement as claimed. As to claim 35, Applicant is unable to find, in Lading, a teaching or disclosure of projecting a light beam at said chamber. Accordingly, Applicant submits that the structure of Lading cannot be said to be substantially identical to that of the claims. Furthermore, Applicant submits that those claims depending from the independent claims are also allowable since each recites additional elements beyond that of the base claim.

Pursuant to M.P.E.P. §2141.02, the claimed subject matter as a whole must be considered. Functional claim language is to be given patentable weight pursuant to Federal Circuit decisions, including, for example, *In re* Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) and *In re* Zurko, 111 F.3d 887, 42 USPQ2d 1476 (Fed. Cir. 1997), *rev'd on other grounds*, 527 U.S. 150, 50 USPQ2d 1930 (1999). Applicant respectfully requests that the Examiner afford the requisite weight to all recited claim elements. For these and other reasons, Applicant submits that claims 1-11, 13-25, 35-43 and 45-50 are in condition for allowance.

#### §103 Rejection of the Claims

Claims 12 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lading et al. in view of Ebersole et al. (U.S. Patent No. 5,658,732 A).

Applicant respectfully traverses the rejection and submits that *prima facie* obviousness has not been established. For example, Applicant is unable to find, in the proposed combination of Lading and Ebersole, a teaching or suggestion of all recited claim elements. Claim 12 depends from claim 1 and as noted earlier, Lading does not appear to teach all recited elements. Applicant submits that the addition of Ebersole does not cure the shortcomings noted above and the Office Action does not identify a teaching, in Ebersole, of a structure configured to reflectively communicate light to an optical sensor, as recited in the independent claim. Claim 44 depends from claim 35 and as noted earlier, Lading does not appear to teach all recited elements. Applicant submits that the addition of Ebersole does not cure the shortcomings noted above and the Office Action does not identify a teaching, in Ebersole, of projecting a light beam at said chamber, as recited in the independent claim. For at least these reasons, Applicant

INTERVIEW SUMMARY AND AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE Pa

Serial Number: 10/010,939

Dkt: 1153.009US1

Filing Date: November 7, 2001

۹,

Title: NANOFABRICATED PHOTON TUNNELING BASED SENSOR

submits that *prima facie* obviousness has not been established and that claims 12 and 44 are in condition for allowance.

INTERVIEW SUMMARY AND AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE Page 11
Serial Number: 10/010,939
Dkt: 1153.009US1

Filing Date: November 7, 2001

Title: NANOFABRICATED PHOTON TUNNELING BASED SENSOR

# **CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6911 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

HAROLD G. CRAIGHEAD ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

P.O. Box 2938

Minneapolis, MN 55402

(612) 373-6911

Date June 7, 2005 By Willy Sm

David W. Black Reg. No. 42,331

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this \_\_\_\_7th\_\_ day of June, 2005June, 2005

PATRICIA A. HULTMAN Julian

Name

Signature